In the Claims

1. (currently amended) An apparatus for communication to a network and ~~for use with~~ including at least a first and second object, each of which objects is characterized by a location, comprising:

a location circuit installed in each object which detects location information of the corresponding object in real-time;

a processor with memory installed in each object coupled to the location circuit, which processor receives the location information and activates responsive functions according to the corresponding object's current location and which processor stores events of the corresponding object in a history file; and

a communication circuit installed in each object coupled to the processor in the same object to transmit ~~messages to the network~~ and to receive messages ~~from~~ within the network,

where the processor corresponding to the first object automatically activates selected functions controlling the first object in response to the location of the second object.

2. (currently amended) The apparatus of claim 1 in further combination with at least one but not more than three satellites of a global positioning system and where the location circuit comprises a GPS receiver

communicating with the at least one satellite of the global positioning system and communicating with a terrestrial location detection network to determine the position of the object from a combination of signals from the global positioning system and terrestrial location detection network.

3. (cancelled)

4. (cancelled).

A2 cont'd

5. (currently amended) The apparatus of claim 1 in further combination with a single satellite of a global positioning system and where the location circuit comprises a GPS receiver communicating with the satellite of the global positioning system and a terrestrial location detection network in combination ~~The apparatus of claim 4~~ where the processor in each object controls the location circuit in the same object to first determine location of the corresponding object using the GPS receiver and then uses the terrestrial location detection network to determine location only if the GPS receiver fails to provide valid locational information.

6. (original) The apparatus of claim 1 where the events of the history file stored by the processor in each object includes location, time of day, speed, and direction of the corresponding object for each event.

7. (original) The apparatus of claim 6 where the events of the history file stored by the processor in each object include the type of the event.

8. (original) The apparatus of claim 7 where the events of the history file stored by the processor in each object include sent and received messages.

9. (original) The apparatus of claim 1 in further combination with a remote server communicated through the network with one of the first and second objects where an event of the history file stored by the processor in each object is sent to the remote server and then cleared by the processor in the corresponding object from the memory in the corresponding object.

A2 cont'd

10. (currently amended) The apparatus of claim 9, wherein at least one of the objects is mobile, and where location information, information relating to an event, requests submitted from an object to the remote server or to other objects, and the related actions recorded in the mobile object are ~~is~~ cleared by the processor in each object from the memory in the corresponding object on a periodic basis.

11. (currently amended) The apparatus of claim 9, wherein at least one of the objects is mobile, and where location information, information relating to an event, requests submitted from an object to the remote server or to other objects,

and the related actions recorded in the mobile object are ~~is~~ cleared by the processor in each object from the memory in the corresponding object at the time that event of the history file stored by the processor in each object is sent to the remote server.

12. (cancelled)

13. (original) The apparatus of claim 1 where the communication circuit in each object comprises a plurality of wireless modems, a satellite modem and a frequency adjustable transceiver in each object coupled to the wireless modems and satellite modem in the corresponding object, wherein the processor in each object is coupled to and controls the frequency adjustable transceiver in the corresponding object to select a best signal from the wireless modems in the corresponding object, but if the best signal from the wireless modems in the corresponding object fails to satisfy a predetermined threshold, then the processor in each object controls the frequency adjustable transceiver in the corresponding object to select a signal from the satellite modem in the corresponding object.

14. (currently) The apparatus of claim 1 where the communication circuit comprises a two-way radio for communicating with each of the objects and wherein at least one object has locational information which is shared with the other objects, and where the processor in each object stores all valid location

fixes and where the location circuit in the corresponding object comprises in the corresponding object a GPS engine board, a receiver for communication to the network coupled to the GPS engine board, and a position computation circuit coupled to the receiver, the GPS engine board, receiver and position computation circuit being coupled to the processor, where the processor in each object controls the GPS engine board in the corresponding object to determine location of the corresponding object, but if the GPS engine board in the corresponding object fails to provide a valid location fix, the processor in the corresponding object then controls the position computation circuit in the corresponding object to provide a location by dead reckoning based on the last recorded valid location fix including that obtained from another object.

15. (original) The apparatus of claim 14 where the position computation circuit in the each object comprises a gyro and a speed sensor to provide dead reckoning input data from which the processor in the corresponding object calculates a dead reckoning location.

16. (cancelled)

17. (currently amended) The apparatus of claim 1 further comprising a plurality of input/output ports in the corresponding object coupled to the processor in each object and a plurality of external devices in the corresponding object coupled to the plurality of input/output ports in the object.

18. (currently amended) A method comprising:

detecting location information of a plurality of objects in real-time in a corresponding location circuit in each object;

inputting the location information into a processor in each object with memory in the corresponding object coupled to the location circuit in the corresponding object;

storing events of each object in a history file in the memory in the corresponding object; and

transmitting messages from each of the objects ~~to a network~~; and

activating a responsive function in at least one of the objects through the network according to the corresponding object's location, where the processor corresponding to the at least one object automatically activates a selected function to control the same object in response to the location of the other one of the objects.

19. (currently amended) The method of claim 18 in further combination with at least one, but not more than three satellites of a global positioning system and where detecting location information of at least one object in real-time comprises communicating a GPS receiver in the corresponding object with at least one satellite of the global positioning system.

20. (original) The method of claim 18 where detecting location information of at least one object in real-time comprises communicating the corresponding object with a terrestrial location detection network.

21. (cancelled)

22. (currently amended) The method of claim 18 in further combination with a single satellite of a global positioning system and where detecting location information of at least one object in real-time comprises communicating a GPS receiver in the corresponding object with the satellite of the global positioning system and a terrestrial location detection network in combination, ~~The method of claim 21~~ where communicating a GPS receiver in the corresponding object with at least one satellite of the global positioning system and a terrestrial location detection network in combination comprises controlling the location circuit in the corresponding object to first determine location using the GPS receiver in the corresponding object and then communicating the corresponding object with the terrestrial location detection network to determine location only if the GPS receiver in the corresponding object fails to provide valid locational information.

23. (original) The method of claim 18 where storing events of the corresponding object in a history file comprises storing location, time of day,

speed, and direction of the corresponding object for each event relating to the corresponding object.

24. (original) The method of claim 23 where storing events of the corresponding object in a history file comprises storing the type of the event relating to the corresponding object.

25. (original) The method of claim 24 where storing events of the corresponding object in a history file comprises storing sent and received messages relating to the corresponding object in the corresponding object.

26. (original) The method of claim 18 further comprising communicating with a remote server through the network with one objects where an event of the history file stored by the processor in the corresponding object is sent to the remote server and then cleared by the processor in the corresponding object from memory in the corresponding object.

27. (original) The method of claim 26 where clearing the event of the history file in the corresponding object is performed on a periodic basis.

28. (original) The method of claim 26 where clearing the event of the history file in the corresponding object is performed at the time that event of the

history file stored by the processor in the corresponding object is sent to the remote server.

29. (original) The method of claim 18 where at least one of the objects is moving.

30. (cancelled)

A2 cont'd

31. (original) The method of claim 18 where transmitting messages from each of the objects to a network comprises in each of the corresponding objects transmitting through a plurality of wireless modems, a satellite modem and a frequency adjustable transceiver in each of the corresponding objects coupled to the wireless modems and satellite modem in the corresponding objects, wherein the processor in each of the corresponding objects is coupled to and controls the frequency adjustable transceiver in the corresponding object to select a best signal from the wireless modems in the corresponding object, but if the best signal from the wireless modems in the corresponding object fails to satisfy a predetermined threshold, then the processor in the corresponding object controls the frequency adjustable transceiver in the corresponding object to select a signal from the satellite modem in the corresponding object.

32. (currently amended) The method of claim 18 further comprising communicating with each of the objects by means of a two-way radio, where at least one of the objects has locational information stored therein which is communicated to another object, and storing all valid location fixes in the corresponding object and where detecting location information in the corresponding object comprises operating in each object a GPS engine board, a receiver for communication to the network coupled to the GPS engine board, and a position computation circuit to the receiver in the corresponding object, the GPS engine board, receiver and position computation circuit being coupled in each object to the processor in the corresponding object, the processor in each object controlling the GPS engine board in the corresponding object to determine location of the corresponding object, but if the GPS engine board in the corresponding object fails to provide a valid location fix, the processor in the corresponding object then controlling the position computation circuit in the corresponding object to provide a location by dead reckoning based on the last recorded valid location fix including that obtained from another object.

33. (original) The method of claim 32 where providing a location by dead reckoning in the corresponding object comprises using a gyro and a speed sensor in the corresponding object to provide dead reckoning input data and calculating a dead reckoning location using the processor in the corresponding object.

34. (cancelled)

35. (original) The method of claim 18 further comprising communicating in each object through a plurality of input/output ports between the processor and a plurality of external devices coupled the plurality of input/output ports in the corresponding object.

36. (cancelled)

37. (currently amended) An apparatus for use with an object characterized by a location in combination with a single satellite of a global positioning system and a terrestrial location detection network, comprising:

a location circuit which detects location information of the object in real-time including a GPS receiver communicating with the satellite of the global positioning system and the terrestrial location detection network;

a processor with memory coupled to the location circuit, which processor receives the location information and activates responsive functions according to the object's current location; and

a communications circuit coupled to the location circuit, ~~The apparatus of claim 36~~ where the processor controls the location circuit to first determine location using the GPS receiver and then uses the terrestrial location detection network to determine location only if the GPS receiver fails to provide valid locational information.

38. (original) The apparatus of claim 37 ~~36~~ where the communication circuit comprises a plurality of wireless modems, a satellite modem and a frequency adjustable transceiver coupled to the wireless modems and satellite modem, wherein the processor is coupled to and controls the frequency adjustable transceiver to select a best signal from the wireless modems, but if the best signal from the wireless modems fails to satisfy a predetermined threshold, then the processor controls the frequency adjustable transceiver to select a signal from the satellite modem.

A7 cont'd

39. (currently amended) The apparatus of claim 37 ~~36~~ where the communication circuit comprises a two-way radio for communicating with each of the objects, where at least of the objects has locational information stored therein and where the processor stores all valid location fixes and where the location circuit comprises a GPS engine board, a receiver for communication to the network coupled to the GPS engine board, and a position computation circuit coupled to the receiver, the GPS engine board, receiver and position computation circuit being coupled to the processor, where the processor controls the GPS engine board to determine location of the corresponding object, but if the GPS engine board fails to provide a valid location fix, the processor then controls the position computation circuit to provide a location by dead reckoning based on the last recorded valid location fix including that obtained from another object.

40. (original) The apparatus of claim 39 where the position computation circuit comprises a gyro and a speed sensor to provide dead reckoning input data from which the processor calculates a dead reckoning location.

41. (cancelled)

42. (cancelled)

A7 cont'd

43. (currently amended) A method used in combination with a single satellite of a global positioning system and at least one terrestrially based positioning system comprising:

detecting location information of at least one object in real-time by selectively communicating a GPS receiver with the satellite of the global positioning system or by selectively communicating a terrestrial receiver with at least one terrestrially based positioning system; and

inputting the location information into a processor with memory in the object, ~~The method of claim 42~~ where communicating a GPS receiver with at least one satellite of the global positioning system and a terrestrial location detection network in combination comprises controlling a location circuit to first determine location using the GPS receiver and then communicating with the terrestrial location detection network to determine location only if the GPS receiver fails to provide valid locational information.

44. (original) The method of claim 42 further comprising transmitting through a plurality of wireless modems, a satellite modem and a frequency adjustable transceiver coupled to the wireless modems and satellite modem, wherein the processor is coupled to and controls the frequency adjustable transceiver to select a best signal from the wireless modems, but if the best signal from the wireless modems fails to satisfy a predetermined threshold, then the processor controls the frequency adjustable transceiver to select a signal from the satellite modem.

45. (currently amended) The method of claim 42 further comprising communicating with each of the objects by means of a two-way radio, where at least one of the objects has locational information stored therein and storing all valid location fixes and where detecting location information comprises operating a GPS engine board, a receiver for communication to the network coupled to the GPS engine board, and a position computation circuit coupled to the receiver, the GPS engine board, receiver and position computation circuit being coupled to the processor, the processor controlling the GPS engine board to determine location of the corresponding object, but if the GPS engine board fails to provide a valid location fix, the processor then controlling the position computation circuit to provide a location by dead reckoning based on the last recorded valid location fix including that from another object.

46. (original) The method of claim 45 where providing a location by dead reckoning comprises using a gyro and a speed sensor to provide dead reckoning input data and calculating a dead reckoning location using the processor.

47. (cancelled)

A2 cont

48. (currently amended) An apparatus for communication to a location-detection network, including a global positioning satellite system, and for use with an object which is characterized by a location, comprising:

a location circuit installed in the object which detects location information of the object in real-time independently of the extent of GPS coverage by a plurality of dead reckoning means for determining location based on last known position as determined by GPS;

a processor with memory installed in the object coupled to the location circuit, which processor receives the location information; and

a communication circuit installed in the object and coupled to the processor to communicate with the location-detection network.

49. (currently amended) The apparatus of claim 48 where the location circuit comprises a GPS receiver communicating with the at least one but not more than three satellites of the global positioning satellite system and a terrestrial location detection network to determine the position of the object from

a combination of signals from the global positioning system and terrestrial location detection network.

50. (original) The apparatus of claim 48 where the location-detection network includes a terrestrially based location detection network and where the location circuit communicates through the communication circuit with the terrestrially based location detection network.

A2 cont

51. - 52. (cancelled)

53. (original) The apparatus of claim 48 where the communication circuit comprises a plurality of wireless modems, a satellite modem and a frequency adjustable transceiver coupled to the wireless modems and satellite modem, wherein the processor is coupled to and controls the frequency adjustable transceiver to select a best signal from the wireless modems, but if the best signal from the wireless modems fails to satisfy a predetermined threshold, then the processor controls the frequency adjustable transceiver to select a signal from the satellite modem.

54. (currently amended) The apparatus of claim 48 where the communication circuit comprises a two-way radio for communicating with each of the objects where at least one object has locational information stored therein,

and where the processor stores all valid location fixes and where the location circuit comprises a GPS engine board, a receiver for communication to the network coupled to the GPS engine board, and a position computation circuit coupled to the receiver, the GPS engine board, receiver and position computation circuit being coupled to the processor, where the processor controls the GPS engine board to determine location of the corresponding object, but if the GPS engine board fails to provide a valid location fix, the processor then controls the position computation circuit to provide a location by dead reckoning based on the last recorded valid location fix including that from another object.

55. (original) The apparatus of claim 54 where the position computation circuit comprises a gyro and a speed sensor to provide dead reckoning input data from which the processor calculates a dead reckoning location.

56. (cancelled)

57. (currently amended) A method for communication to a location-detection network, including a global positioning satellite system, and for use with an object, which is characterized by a location, comprising:

selectively communicating with selected portions of the location-detection network including a global positioning satellite system;

detecting location information of an object in real-time independently of the extent of GPS coverage by a plurality of dead reckoning means for determining location based on last known position as determined by GPS; and

inputting the location information into a processor with memory.

58. (currently amended) The method of claim 57 where selectively communicating with selected portions of the location-detection network including a global positioning satellite system comprises communicating a GPS receiver with at least one, but not more than three satellites of the global positioning system and a terrestrial location detection network in combination.

A2 cont

59. (original) The method of claim 58 where communicating a GPS receiver with at least one satellite of the global positioning system and a terrestrial location detection network in combination comprises controlling the location circuit to first determine location using the GPS receiver and then communicating with the terrestrial location detection network to determine location only if the GPS receiver fails to provide valid locational information.

60. (original) The method of claim 57 where selectively communicating with selected portions of the location-detection network including a global positioning satellite system comprises transmitting through a plurality of wireless modems, a satellite modem and a frequency adjustable transceiver coupled to the wireless modems and satellite modem, wherein the processor is coupled to

and controls the frequency adjustable transceiver to select a best signal from the wireless modems, but if the best signal from the wireless modems fails to satisfy a predetermined threshold, then the processor controls the frequency adjustable transceiver to select a signal from the satellite modem.

61. (currently amended) The method of claim 57 further comprising communicating with each of the objects by means of a two-way radio where at least one of the objects has locational information stored therein, and storing all valid location fixes and where detecting location information comprises operating a GPS engine board, a receiver for communication to the network coupled to the GPS engine board, and a position computation circuit coupled to the receiver, the GPS engine board, receiver and position computation circuit being coupled to the processor, the processor controlling the GPS engine board to determine location of the corresponding object, but if the GPS engine board fails to provide a valid location fix, the processor then controlling the position computation circuit to provide a location by dead reckoning based on the last recorded valid location fix including that from another object.

62. (original) The method of claim 61 where providing a location by dead reckoning comprises using a gyro and a speed sensor to provide dead reckoning input data and calculating a dead reckoning location using the processor.

AZ cancl.

63. (cancelled)